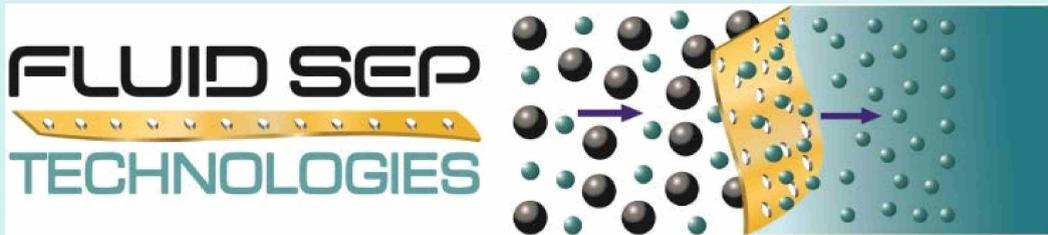
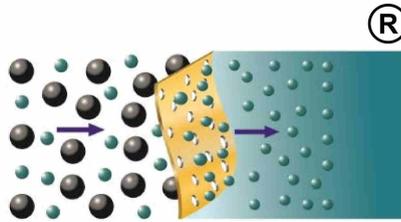


®



**AN ISO 9001:2015 CERTIFIED COMPANY**

**FLUID SEP**  
TECHNOLOGIES



## ***Our Vision***

*"We need your helping hand to  
save Water, Sky and Land"*

## ***Our Echo***

*"Choose your own parameters"*

After years of experience and R&D **Fluid Sep Technologies** has devoured time and energy to invent and developed advanced membrane based technology to recycle the pure water for process from waste water. This brochure has been published to introduce this revolutionary technology to conserve the water and environment as well.

**Fluid Sep Technologies** is a company which is dedicated to deliver best, feasible and cost optimized solution in segment of water treatment and waste water treatment, process application. We know and understand the requirement of client and modern industry. Engineering excellence with unbeatable quality to give you products related to water.

We are one of the leading manufacturer of water and waste water treatment plant in India with expertise in membrane technology for water and waste water treatments as well as for process application.



## **POLYMERIC MEMBRANE**

**Fluid Sep Technologies** offers a wide range of membrane based solution for process applications. It has range of polymeric membranes Micro Filtration, Ultra Filtration, Nano Filtration and RO System.

We have developed special membranes like

- High temperature resistance sanitized membranes.
- Solvent resistance membranes.
- Caustic and inorganic acid purification and concentration.
- Membranes for Production of food grade salt from sea water.

## **Applications for Polymeric Membrane**



### **Food and Beverages Industry**

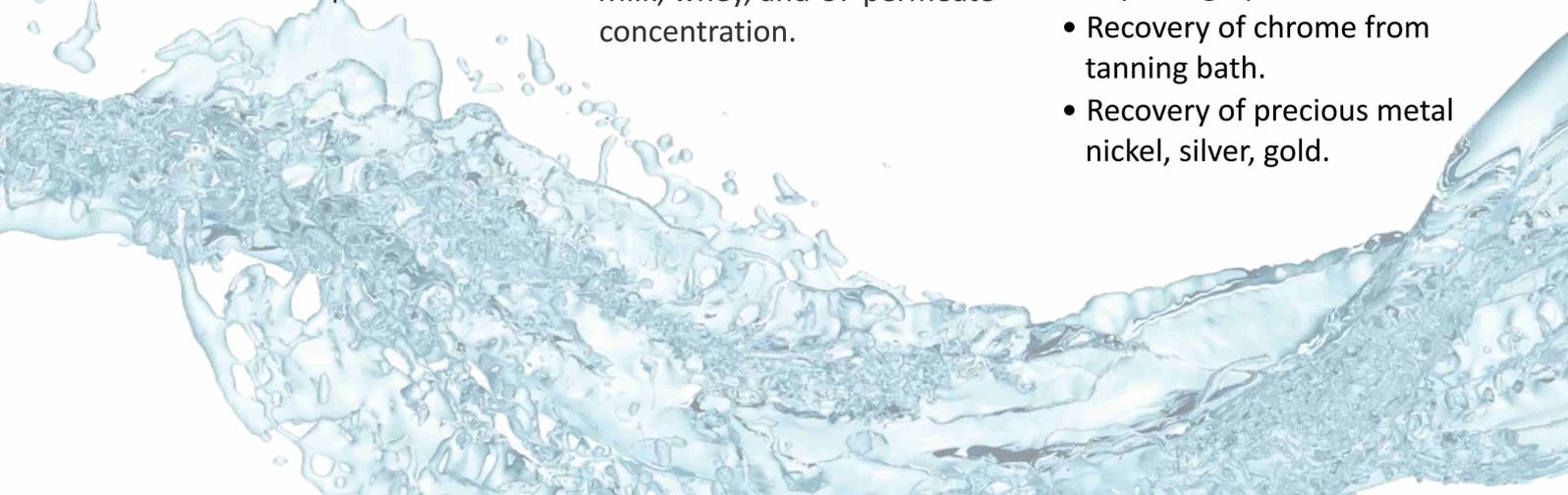
- Corn wet milling process.
- Fruit juice sterilization, clarification, and concentration.
- Protein standardization alcohol sterilization and concentration soybean deep processing.
- Soymilk filtration.
- Soy whey protein concentration Tea extraction and deep processing.
- Fermented products sterilization and clarification.
- Coconut Protein concentration.
- Concentration of spices.

### **Dairy Industry**

- Whey defatting.
- Casein concentration.
- Whey protein concentrate and Isolate.
- Caustic and acid recovery.
- Milk protein concentrate.
- Lactose demineralization and concentration.
- Whey demineralization.
- High solids concentrate.
- Whey and milk protein concentrate.
- Whey protein isolate.
- Milk, whey, and UF permeate concentration.

### **Special Application**

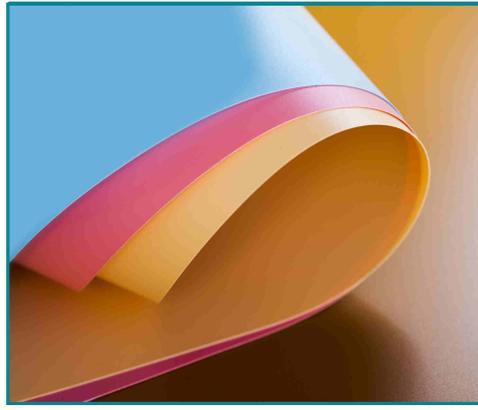
- Recovery of biomolecules from fishery compound.
- Sulphate removal system
- Removal of phospholipids (degumming) of edible oil.
- Gelatine de-ashing and Recovery.
- Membrane solutions for bio-fuel production.
- Glycol and glycerine recovery.
- ED paints recovery from rinse bath.
- Concentration and purification of photographic emulsions.
- Recovery of chrome from tanning bath.
- Recovery of precious metal nickel, silver, gold.





### **Bio-Pharmaceutical Industry**

- Antibiotics production.
- Blood protein concentration.
- Endotoxin & pyrogen removal.
- Enzyme concentration.
- Polypeptide concentration.
- Pyrogen free high purity water



### **Paper & Pulp Industry**

- Ligno-sulphonate recovery.
- Caustic recovery.
- Deinking (removal of Ink).
- Bleach effluent treatment.
- Paper machine filtrate.
- Black liquor treatment.



### **Textile and Dyes Industry**

- Dye concentration.
- Purification of acid dye Reactive dye and direct dye.
- Dye recovery.
- Pigment concentration.
- Polyvinyl alcohol recovery.
- Caustic recovery.



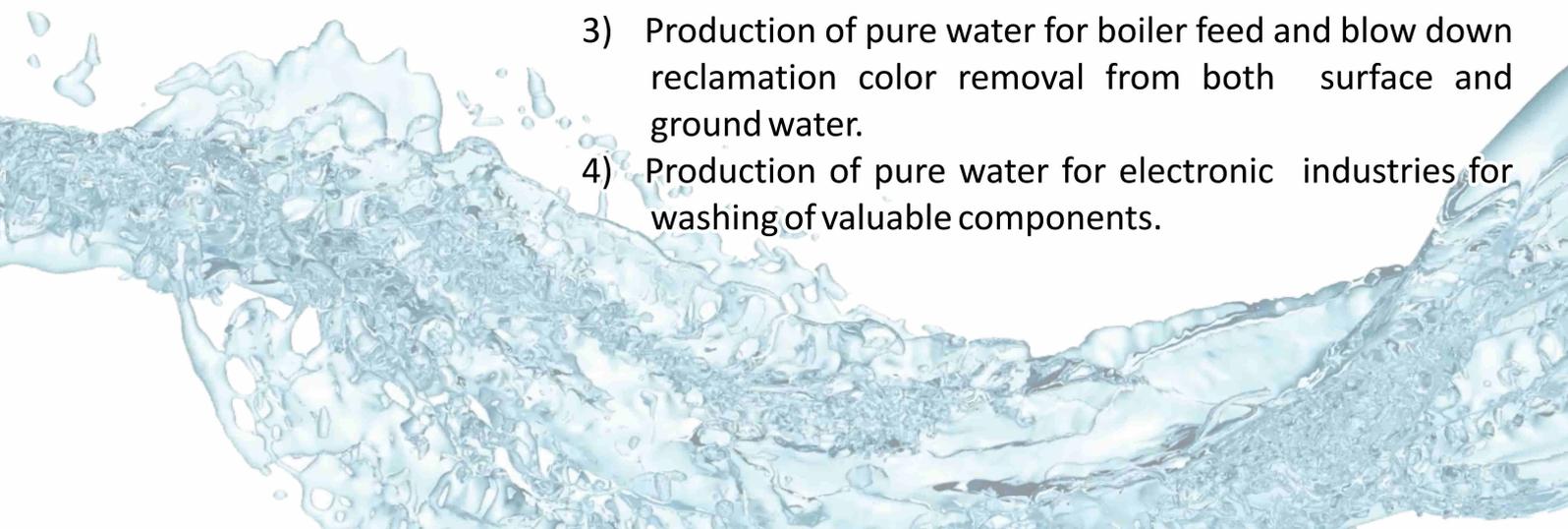
### **Sugar Industry**

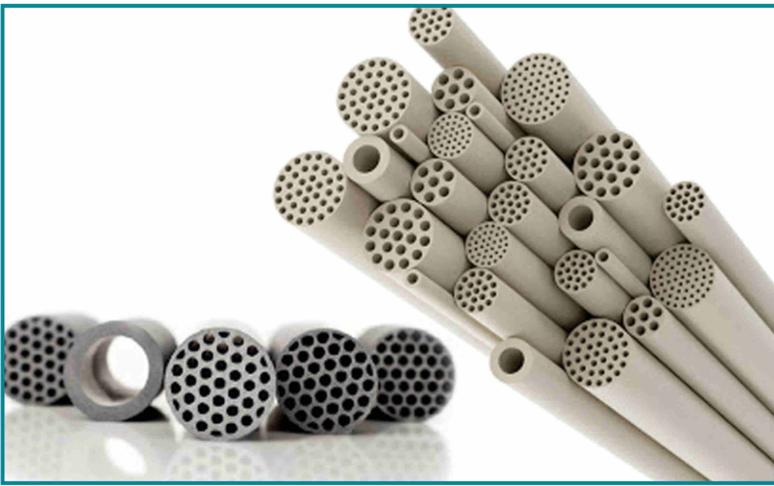
- Colour removal.
- Brine recovery.
- Sugar cane Juice concentration.



### ***Solution To Water Treatment***

- 1) Production of pure water from brackish water.
- 2) Production of pure water from sea water.
- 2) Production of bacteria & pyrogenic free water for domestic & industrial use.
- 3) Production of pure water for boiler feed and blow down reclamation color removal from both surface and ground water.
- 4) Production of pure water for electronic industries for washing of valuable components.





## CERAMIC MEMBRANE

**Fluid Sep Technologies** have vast experience and expertise in ceramic membrane technology. We have ability and specialization to execute cost optimized and application oriented Ceramic Membrane Technology. Ceramic membrane application is being used in industry because of its special features and worldwide agreeable advantages.

### FEATURES :

- High Flux.
- Reliability.
- Long operational Life.
- Easy to use.
- Stable over a wide pH (0-14) range and chemical compatibility.
- Sterilization by steam and oxidizing agents.
- Excellent strength.
- Narrow pore Size distribution.
- Excellent performance.
- Quality control process and procedures with full trace ability.

	Cut-off								
	Microfiltration (um)				Ultrafiltration(nm)			Nanofiltration(nm)	
	1.2	0.45	0.2	0.1	100	50	20	8	2
Cross Section									
External diameter (mm)	25	30	30	30	30	40	40	40	40
Number of channels	19	7	19	37	61	19	37	61	91
Channel diameter(mm)	3.3	6.0	4.0	2.7	2.2	6.0	3.6	2.5	2.0
Length*(mm)	1178	1200	1200	1200	1200	1200	1200	1200	1200
Area*(mm)	0.23	0.15	0.29	0.37	0.5	0.43	0.5	0.57	0.68

### Applications for Ceramic Membrane



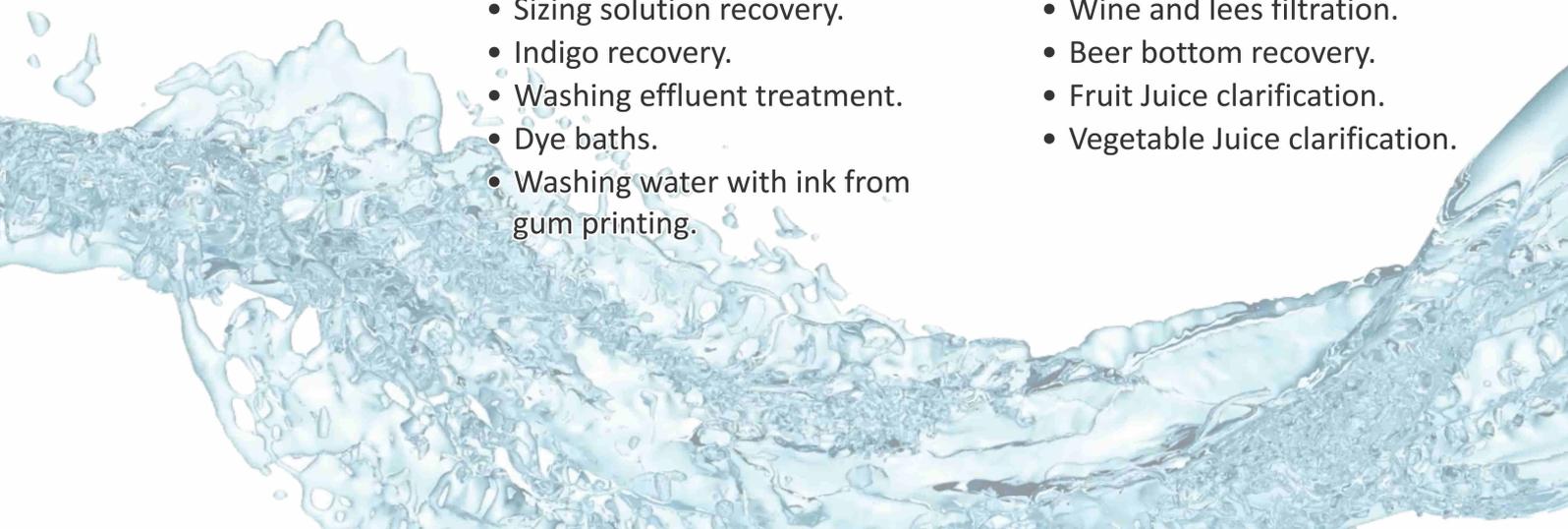
#### Textile and Printing Industry

- Sizing solution recovery.
- Indigo recovery.
- Washing effluent treatment.
- Dye baths.
- Washing water with ink from gum printing.



#### Beverage Industry

- Wine and lees filtration.
- Beer bottom recovery.
- Fruit Juice clarification.
- Vegetable Juice clarification.





### Special Application

- Gelatine clarification.
- Xanthan gum fermentation broth filtration.
- Skim Latex Filtration.
- Brine Filtration for chlor-Alkali.
- Raw salt filtration.
- Catalyst recovery.
- Nano powder recovery.
- Alkaline baths from printed circuits.
- Colloidal silica concentration.



### Pharma Industry

- Amino acid fermentation broth filtration and concentration.
- Organic acid fermentation broth filtration and concentration.
- Vitamins fermentation, polymyxin broth filtration and concentration.
- Enzyme fermentation broth filtration and concentration.
- B-Lactams broth filtration.
- Amino-glycosides broth filtration.
- Macrolides broth filtration.



### Food Industry

- Glucose syrup (mud & TAB Removal).
- Yeast filtration & concentration.
- Soy sauce filtration.
- Vinegar filtration.
- Tea extract filtration and concentration.
- Vegetable protein filtration and concentration.
- Animal protein purification.



### Typical Waste Water Treatment

- Oil field injection water treatment.
- Slaughter house waste water.
- Edible oil waste water stream.
- Degreasing bath filtration. metallurgical industry.
- Oil water separation Steel industry.



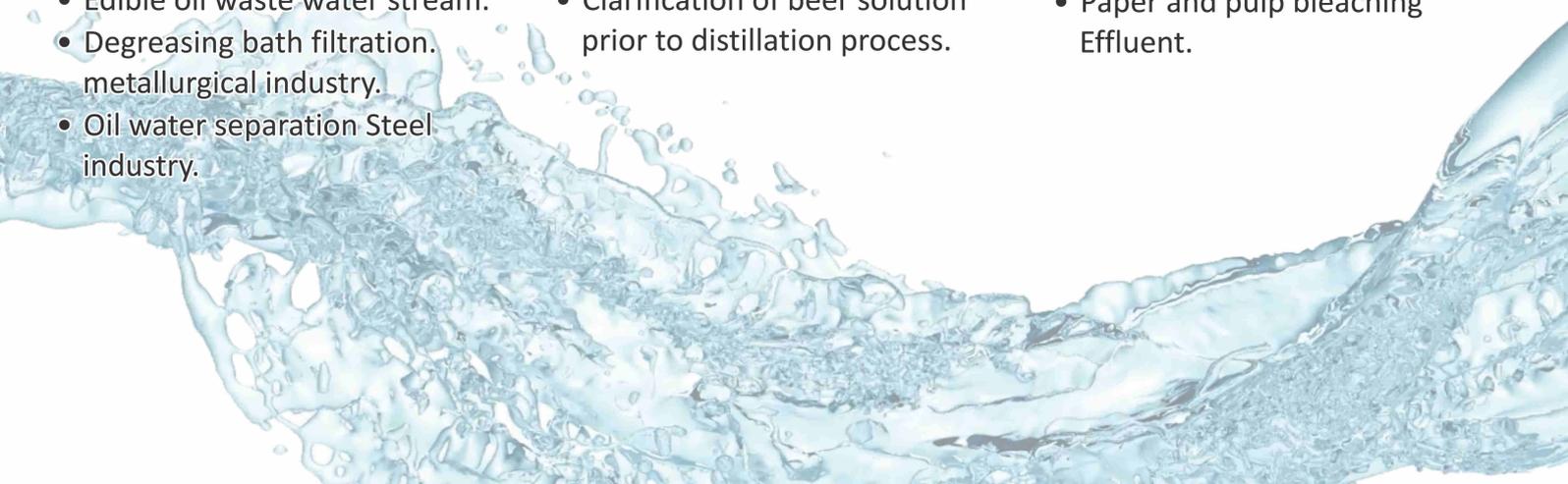
### Sugar Industry

- Sugar cane and beet sugar juice clarification.
- Hydrolysate clarification.
- Clarification of beer solution prior to distillation process.



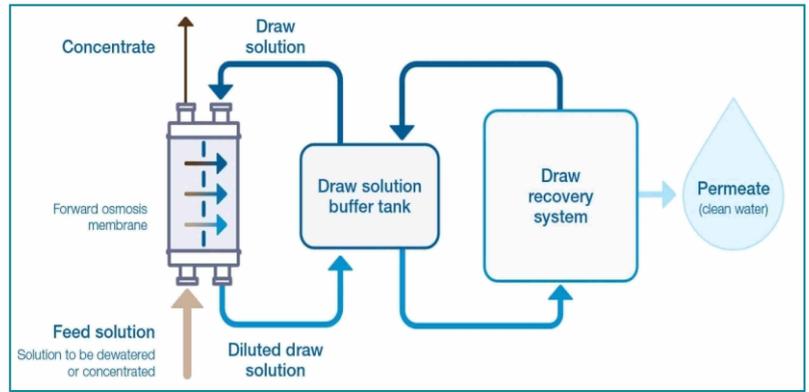
### Paper Industry

- Black liquors.
- Lignin recovery.
- Coating effluent.
- Paper and pulp bleaching Effluent.



## FORWARD OSMOSIS

Forward Osmosis (FO) is an osmotic membrane process with a semipermeable membrane that unlike Reverse Osmosis (RO) doesn't use applied pressure in order to achieve separation of water from dissolved solutes like ions, molecules and larger particles.



## PROCESS APPLICATION

- 1) Brine concentration.
- 2) Oil and gas.
- 3) Mining and metallurgy.
- 4) Landfill leachate.
- 5) Minimizing waste water quantity.
- 6) Food and Beverages.

## FEATURES :

- 1) It can take any type waste water.
- 2) Low energy.
- 3) Low pressurized operation.
- 4) Easy and effective chemical cleaning.
- 5) Less Chemical use.
- 6) Smooth and safe maintenance.

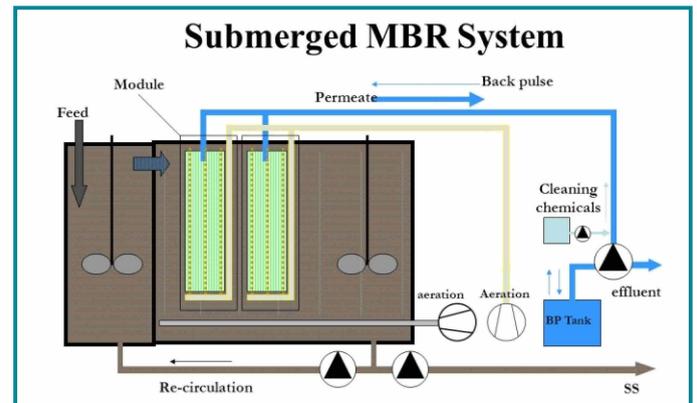
**Fluid Sep Technologies** has developed a pilot plant for forward osmosis technologies and it has advantages against conventional reverse osmosis system.

## Membrane Bio Reactor

It is the combination of a membrane process like Micro-filtration or Ultra-filtration with a biological wastewater treatment process, the activated sludge process.

## Features / Advantages

- 1) Small footprint.
- 2) Competitive capital costs.
- 3) Easy to install, operate and cleaning
- 4) Energy efficient - lower power consumption.
- 5) Enhancement in efficiency of secondary treatment
- 6) Elimination of tertiary treatment.



## Where to use?

- 1) MBR Based STP in Commercial Buildings, Hotels, Hospital and Resorts.
- 2) Small municipalities' treatment plants.
- 3) Industrial chemical plants, mining camps slaughterhouses, dairy food products etc.



### **Waste Water Treatment**

- 1) Reduction of COD/BOD, TSS
- 2) Oily emulsion water treatment
- 3) Treatment of caustic & acid processing stream
- 4) Condensate water recycling
- 5) Recovery of valuable chemicals from waste water
- 6) Supply, designing & commissioning of Zero discharge plant

**FLUID SEP TECHNOLOGIES** has wide range of solutions for different industries. The uniqueness of our company is, it has solutions for right from drinking water to waste water in terms of WTP, STP, ETP and Membrane System.

Some of the industries are mentioned here under below which are being catered by us.

1. Health Care and Pharmaceutical Industries.
2. Textile Industries.
3. Metal & Mining Industries.
4. Chlor – Alkali Industries.
5. Tanneries Industries.
6. Steel Industries.
7. Chemical Industries.
8. Power Plant.
9. Oil & Grease.
10. Sugar Industries.
11. Distilleries Industries.
12. Auto Mobile Industries.
13. Food & Processing.
14. Cement Industries.
15. Colour & Pigment Industries.
16. Pulp & Paper Industries.
17. Bio Technology based Industries.
18. Dairy Industries.
19. Hotel & Hospitals.
20. Urban and Municipality and many more.



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